Remarks

Claims 3, 13 and 18 are cancelled herein. Claims 1-2, 4-5, 8-12, 14-17 and 19-20 are amended herein. Claims 1-2, 4-12, 14-17 and 19-20 remain pending in the Application.

Abstract

The abstract is objected to because the maximum length of 150 words has been exceeded. Applicant has corrected the Abstract. Therefore, the objection with respect to the Abstract is overcome.

Specification

The disclosure is objected to because of informalities. Applicant has corrected the informalities of the specification. Therefore, the objection with respect to the disclosure is overcome.

Drawings

The drawings are objected to under 37 C.F.R. 1.83(a). The objection states the legend step 83(FIG. 4) in block 99 of Figure 6 is not found in Fig. 4 as indicated. Applicant has provided a corrected drawing sheet correcting the legend to step 61(FIG. 4). Therefore, the objection with respect to the drawings is overcome.

Claim Objections

In the Office Action, Claims 8 and 11 are objected to for informalities. Applicant has corrected the informality of Claims 8 and 11. Therefore, the objection with respect to Claims 8 and 11 is overcome.

Rejection under 35 U.S.C. 112

In the Office Action, Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to Claims 13 and 14, the rejection states that Claims 13 and 14 recite the limitation "said storage logic." Claims 13 and 14 have been amended herein. Therefore, the rejection of Claims 13 and 14 are overcome.

With respect to Claims 1, 4, 16, 18 and 19, the rejection states that Claims 1, 4, 16, 18 and 19 recite the limitation "said plurality of counters." Claims 1, 4, 16, 18 and 19 have been amended herein. Therefore, the rejection of Claims 1, 4, 16, 18 and 19 are overcome.

With respect to Claims 8, 9, 13 and 14, the rejection states that Claims 8, 9, 13 and 14 recite the limitations "said plurality of counting means" and "said plurality of counting logic." Claims 8, 9, 13 and 14 have been amended herein. Therefore, the rejection of Claims 8, 9, 13 and 14 are overcome.

With respect to Claim 5, the rejection states that Claim 5 recites the limitation "said code cache." Claim 5 has been amended herein. Therefore, the rejection of Claim 5 is overcome.

With respect to Claim 11, the rejection states that Claim 11 recites the limitation "logic for storing said counting logic of said plurality of blocks of code." Which is not clearly distinguished from the prior limitation of Claim 11. Claim 11 has been amended herein. Therefore, the rejection of Claim 11 is overcome.

With respect to Claims 2-5, 12-15 and 17-20, the rejection states that Claims 2-5, 12-15 and 17-20 contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 2-5, 12-15 and 17-20 have been amended herein. Therefore, the rejection of Claims 2-5, 12-15 and 17-20 is overcome.

<u>Rejection under 102(e)</u>

<u>Claim 11</u>

In the Office Action, the Examiner rejected Claim 11 under 35 USC 102(e) as being anticipated by Holmberg (UspubN 2001/0021959). Applicant has reviewed Holmberg and respectfully states that the present invention is not anticipated by Holmberg for the following rationale.

Applicant respectfully agrees with the Examiner's statement that Holmberg does not explicitly disclose that the storing of the counter of the block of code in a counter cache is for storing the counter of blocks that are most recently executed.

Therefore, Applicant respectfully submits that Holmberg does not anticipate the present claimed invention as recited in Claim 11, and as such, Claim 11 is in condition for allowance.

<u>Rejection under 103(a)</u>

<u>Claim 12</u>

In the Office Action, the Examiner rejected Claim 12 under 35 USC 103(a) as being unpatentable over Holmberg. Applicant has reviewed the cited reference and respectfully submits that the present invention is not rendered obvious in view of Holmberg for the following rationale.

With respect to Claim 12, Applicant respectfully points out that Claim 12 depends from the allowable Independent Claim 11 and recites further features of the present claimed invention. Therefore, Applicant respectfully states that Claim 12 is allowable as pending from an allowable base Claim.

<u>Rejection under 103(a)</u>

<u>Claims 1-10 and 13-20</u>

In the Office Action, the Examiner rejected Claims 1-10 and 13-20 under 35 USC 103(a) as being unpatentable over Holmberg in view of Burton et al (6738865). Applicant has reviewed the cited reference and respectfully submits that the present invention is not rendered obvious over Holmberg in view of Burton et al. for the following rationale.

With respect to Claims 1, 6, and 16, Applicant respectfully states that Claims 1, 6, and 16 include the features of "a counter cache and a storage cache" both for storing counters. Applicant understands the Examiner to state in the office action that Holmberg does not disclose maintaining a counter cache for storing a counter associated with a block of code, nor does Holmberg disclose maintaining a storage area for storing counters associated with a block of code.

Moreover, Applicant understands Holmberg to teach against the use of caching data based solely on frequency of use. That is, Applicant understands Holmberg to also teach cache allocation based on importance of the instruction such as, for example, the processor can do measurements that do not count accesses from these program blocks or discard accesses made from programs running on lower priority levels. Therefore, Holmberg does not teach nor render obvious the features of the present invention.

Applicant does not understand Burton et al. to overcome the shortcomings of Holmberg. Specifically, Applicant does not understand Burton et al. to teach or render obvious the features of "a counter cache and a storage cache" both for storing counters. Accordingly, Applicant also respectfully submits that neither Holmberg alone or in combination with Burton et al. teaches or renders obvious the present claimed invention as recited in Claims 1, 6, and 16, and as such, Claims 1, 6, and 16 are in condition for allowance.

Applicant respectfully points out that Claims 2 and 4-5 depend from the allowable Independent Claim 1, Claims 7-10 depend from the allowable Independent Claim 6, Claims 14-15 depend from the allowable Independent Claim 11 and Claims 17 and 19-20 depend from the allowable Independent Claim 16 and recite further features of the present claimed invention. Therefore, Applicant respectfully states that Claim 2, 4-5, 7-10, 14-15, 17 and 19-20 are allowable as pending from an allowable base Claim.

Conclusion

In light of the above amendments and remarks, Applicant respectfully requests allowance of Claims 1-2, 4-12, 14-17 and 19-20.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present application.

Respectfully submitted,

Wagner, Murabito & Hao LLP

Date: 9/21/04

John P. Wagner, Jr.
Reg. No. 35,398

Two North Market Street
Third Floor
San Jose, California 95113
(408) 938-9060

Amendments to the Drawings

The attached sheet of Drawings includes changes to Figure 6. This sheet, which includes Figure 6, replaces the original sheet including Figure 6. In Figure 6, previously mislabeled step 61 of step 99 has been corrected.

Attachment: Replacement Sheet